IOWA DEPARTMENT OF NATURAL RESOURCES
Flood Plain Management Program

Project Information Checklist for Water Supply Facilities that have Already Completed the Flood Plain / Environmental Clearance Evaluation (Plants, Wells, Pipelines, and Access Roads)

This checklist is meant to be used by applicants who have already received the site specific 100-year frequency flood elevation and offset information through the Iowa DNR Flood Plain / Environmental Clearance process. If you have not completed a Flood Plain / Environmental Clearance evaluation, then please do so before submitting an application.

In order for an application for a water supply facility to be considered complete and to allow the Department to continue the review of the project, all of the items listed below must be submitted. An application is not forwarded to the review queue until all of the required items are received. Note that the Department may still need to request additional information.

_____ Completed and signed DNR Form 36, *Joint Application Form – Protecting Iowa Waters*. Please indicate if the project site is inside the incorporated limits of a city by using the word 'in' when listing the city in Item 7 of the application. The application can be obtained online within http://www.iowadnr.gov/water/floodplain/index.html.

_____ Duplicate sets of detailed engineering plans (except that detailed plans may not be needed for some projects that have a minimal impact on the flood plain). Engineering plans typically would include plan and profile views of the facilities, pertinent elevations, and benchmark information (National Geodetic Vertical Datum, if possible). Also indicate how all buildings, offices, and other flood prone equipment and facilities will be elevated or protected to the Minimum Protection Level (MPL). Please note that the plans must be prepared and certified by a professional engineer or land surveyor licensed in the State of Iowa.

_____ Description and locations of any proposed pipeline stream crossings associated with the project.

_____ Description and locations of any proposed streambank stabilization measures associated with the project.

Notes:

- If the project is in an area where flood plain information is not available, then a site specific surveyed stream slope and a site specific surveyed full-valley cross section will be needed. This step is usually addressed in the evaluation process.

    1. The surveyed stream slope should be based on a minimum of two survey shots of the water surface taken at least 500-feet apart.

2. Valley cross sections must be taken perpendicular to the direction of flow and extend to ground that is higher than the 100-year frequency flood elevation. Make sure that the channel is surveyed at the required perpendicular (for just the channel) angle—this may result in a 'dog-legged' cross section alignment if the channel is at a different angle than the valley. Obstructions posed by the facility, wells, and any roads should be depicted on the cross section to show the depth of fill and top elevation(s).

- It is difficult to obtain flood plain approval for fill placed around wells for wellhead protection and for elevated access roads, if such obstructions are located in the Floodway Zone. If any obstructions are situated in a Floodway Zone that is delineated in a Flood Insurance Study (FIS), then it will be necessary to obtain the current base hydraulic computer model from the Federal Emergency Management Agency (FEMA) and conduct an analysis of the impact of the project on flood profiles. If the proposed Floodway Zone obstructions result in any increase in the floodway flood profile (i.e., more than a 0.00 ft. increase for the 100-year encroached condition), then it will be necessary to apply to FEMA for revision of the FIS. Flowage or negative construction easements may also be required.